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ABSTRACT

This is a guide designed to help school personnel to plan Type A school lunches and to understand the relationship of Type A lunch requirements to children's dietary needs. The nutritional requirements of the Federally established Type A lunch pattern, which utilizes agricultural surplus food, are described. Procedures and amounts for planning for feeding different age groups are outlined. Suggestions are offered for making the lunches varied and appealing. Steps for planning and cycling the school lunch menus are delineated. A nutritional chart, sample menu worksheet, and a list of additional resource materials are also provided. (GC)

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A MENU PLANNING GUIDE for TYPE A School Lunches

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U.S. DEPARTMENT OF AGRICULTURE • FOOD AND NUTRITION SERVICE
PROGRAM AID NO. 718

Foreword

The National School Lunch Program serves to safeguard the health and well-being of children through the use of our agricultural abundance. As designed by Congress it is a means of providing nutritious, reasonably priced lunches to school children and contributes to better understanding of good nutrition and improved food habits. Since the passage of the National School Lunch Act in 1946, school food service has become a basic part of the nutritional and educational programs of the Nation, has gained recognition as a profession, has become an important segment of the food industry and has greatly expanded the Nation's markets for food.

The reality of food science today must be reflected in the rapidly growing school food service programs. Everyone involved must constantly try out new ideas and find innovative ways to meet the goal of improved nutrition, increased participation, ease of delivery and economy.

This menu planning guide has been prepared to help school lunch personnel plan Type A school lunches and understand the relationship of the Type A lunch requirements to the dietary needs of boys and girls. Consideration has been given to the most recent advances in the fields of food and nutrition and to the basic principles of good menu planning. This publication includes:

- Requirements for school lunches.
- Suggestions for planning menus for boys and girls of various age groups.
- Systematic methods for planning and evaluating menus.
- Ideas for planning for controlled choices of foods with the Type A lunch pattern.
- Sample menus that meet Type A lunch requirements.

The Nutrition and Technical Services Staff wishes to express its sincere appreciation to all who assisted in the revision of this publication—especially the personnel of the Child Nutrition Division, the Food and Nutrition Service Regional Offices, USDA; the State School Food Service Agencies; and the Food and Diet Appraisal Research Group, Consumer and Food Economics Institute, Agricultural Research Service, USDA.

Washington, D.C. Revised May 1974

JUN 1 1978

A MENU PLANNING GUIDE for TYPE A School Lunches

This revision prepared by
Nutrition and Technical Services Staff
Food and Nutrition Service
U.S. DEPARTMENT OF AGRICULTURE

The following persons had major responsibility for this publication:

Mary Ann Moss, Nutrition and Technical Services Staff
Food and Nutrition Service, USDA, Washington, D.C.

Rhita Jean Sullivan, Food and Nutrition Service
Southwest Region, USDA, Dallas, Texas

Eleanor Pratt, Food and Nutrition Service
Southeast Region, USDA, Atlanta, Georgia

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A MENU PLANNING GUIDE for TYPE A School Lunches

The Importance of Menu Planning

The goal of every school lunch program is to serve nutritionally adequate, attractive and moderately priced lunches. School lunches that meet these standards are very real achievements and are the result of carefully planned menus. The Type A lunch requirements form a simple and easily followed pattern which shows the kinds and amounts of food to serve children; however, the quality of the lunch depends on the knowledge, ability and judgment of the person using the pattern in planning food combinations that will be acceptable to children.

Menu planning, therefore, presents many challenges:

- to provide the best possible lunches at a minimum cost.
- to produce optimum quality meals through effective management of available equipment and facilities.
- to achieve effective use of school food service personnel.
- to help boys and girls learn to eat well and accept a wide variety of foods. This challenge must be shared with the school and the parents.

Successful management of a school lunch program starts with menu planning.

THE MENUS:

. . . help determine whether the lunches meet the Type A requirements and are nutritionally adequate.

. . . help increase participation in the lunch program when they include combinations of foods that are pleasing to children.

. . . help promote good eating habits.

. . . help control food costs when they include USDA-donated foods, foods in plentiful supply and foods purchased wisely.

. . . help control labor costs when they are used as a basis for scheduling work to make the most efficient use of the available equipment and the time and skills of the employees.

The Type A Lunch Pattern . . .

The nutritional goal for school lunches is to furnish at least one-third of the Recommended Daily Dietary Allowances of the National Research Council for children of various age groups. The Type A lunch requirements provide the framework for nutritionally adequate school lunches. The kinds and amounts of foods listed in the Type A lunch pattern are based on the 1968 Recommended Daily Dietary Allowances for 10- to 12-year old boys and girls. (See page 20.)

As specified in the National School Lunch Regulations, a Type A lunch shall contain as a minimum each of the following food components in the amounts indicated: (See pages 10 and 11 for detailed listing of Foods for Type A School Lunches.)

MEAT AND MEAT ALTERNATE

Two ounces (edible portion as served) of lean meat, poultry or fish; or two ounces of cheese; or one egg; or one-half cup of cooked dry beans or dry peas; or four tablespoons of peanut butter; or an equivalent of any combination of the above-listed foods. To be counted in meeting this requirement, these foods must be served in a main dish or in a main dish and one other menu item.

VEGETABLES AND FRUITS

Three-fourths cup serving consisting of two or more vegetables or fruits or both. A serving (¼ cup or more) of full-strength vegetable or fruit juice may be counted to meet not more than ¼ cup of this requirement.

BREAD

One slice of whole-grain or enriched bread; or a serving of other bread such as cornbread, biscuits, rolls, muffins, made of whole-grain or enriched meal or flour.

BUTTER OR FORTIFIED MARGARINE

One teaspoon of butter or fortified margarine.

FLUID MILK

One-half pint of fluid milk as a beverage.

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Add Other Foods not part of the lunch requirements as needed to complete lunches, to help improve acceptability and to provide additional food energy and other nutrients. (See chart page 11.)

To help assure that all Type A lunches meet the nutritional goal, it is recommended that lunches include:

. . . a VITAMIN A vegetable or fruit at least twice a week.
. . . a VITAMIN C vegetable or fruit several times a week.
. . . several foods for IRON each day.

It is also recommended that:

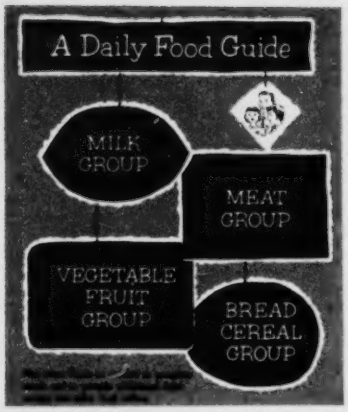
. . . Fat in the Type A lunch be kept at a moderate level.
. . . Iodized Salt be used in preparing lunches.

When a variety of the foods listed above is used in the amounts specified and in combination with Other Foods needed to satisfy the appetite, the lunches will make a significant contribution toward the daily dietary allowances recommended by the National Research Council for 10- to 12-year old boys and girls.

Since younger children are not always able to eat the amounts specified in the Type A lunch, the regulations permit serving these children lesser amounts of selected foods than are specified above.

To meet the nutritional needs of teenagers, the regulations endorse encouraging the serving to older boys and girls of larger amounts of selected foods than are specified in the Type A lunch requirements. See USDA's Type A School Lunch Guide to the Amounts of Food for Boys and Girls of Specified Ages on page 5.

. . . Provides Food for Fitness



The Type A lunch pattern has been developed especially to help in the wise choice of foods that will provide one-third or more of the nutrients boys and girls need each day. It includes foods from all the food groups of the Daily Food Guide and a specified amount of butter or fortified margarine. Broad food choices are possible within the Type A lunch pattern so that cultural, ethnic, and religious food practices of children can be considered in menu planning.

Well-nourished children function better than poorly nourished ones. The food children eat each day makes a difference in the way they look, the way they feel and how well they grow and learn. Food should provide the nutrients children need for good health and normal growth including:

PROTEIN for normal growth and for building and repair of the body.

VITAMINS and MINERALS for growth and to keep the body functioning properly.

FATS and CARBOHYDRATES for energy.

No one food contains all of the nutrients in amounts needed. (See "Nutrients and Foods for Health," Leaflet FNS-97.) A wise selection of a variety of foods that together will supply these nutrients is very important. When the Type A pattern is properly used, the lunches will include foods which supply needed nutrients and energy:

MEAT AND MEAT ALTERNATE—to provide protein, iron, B vitamins (thiamin, riboflavin, niacin) and other nutrients.

VEGETABLES and FRUITS—to provide most of the vitamin A and vitamin C and some of the iron and other vitamins and minerals.

ENRICHED or WHOLE-GRAIN BREADS—to provide some of the B vitamins (thiamin, niacin), minerals (especially iron) and calories.

BUTTER or FORTIFIED MARGARINE—to provide some of the calories and vitamin A.

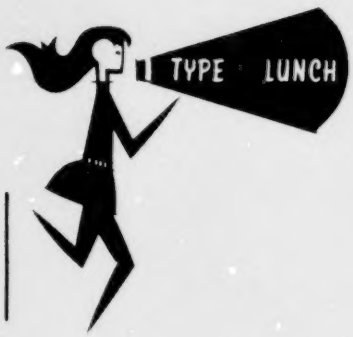
MILK—to provide most of the calcium and riboflavin, some protein, vitamin A, vitamin D (if fortified), phosphorus, and other nutrients.

Other Foods—needed to complete the lunch—will provide additional food energy (calories) and other nutrients.

Planning Type A Lunches for Various Age Groups

Children . . .

It is the food that is eaten which builds and maintains health. Type A lunches should supply the combinations of foods in the amounts children of different age groups will eat and enjoy. The quantities of foods served should be increased or decreased, when appropriate, to satisfy the food and nutritional needs for the age groups being served. The amounts of foods for boys and girls of specified ages are stated in the guide on the opposite page.



FOR CHILDREN IN THE LOWER ELEMENTARY GRADES (ages 6 up to 10 years)—the quantities of some meat alternate items specified in the Type A pattern may be adjusted to meet their lesser food needs. Many children in this age group can and will eat the complete Type A lunch when "go-together" menu items are selected with them in mind.

Plan To Include:

- Foods that meet the Type A lunch requirements first—then add Other Foods to round out lunches or provide appetite appeal.
- Plain foods, simply prepared and lightly seasoned—a meat patty, a vegetable, a canned or fresh fruit. Younger children especially like to recognize the foods they eat and do not always like highly seasoned foods.
- Moderate-to-small size servings of foods. Larger servings may tend to discourage them from eating. Use a combination of 3 servings of vegetables and fruits to meet Type A requirements.
- Fewer or smaller servings of starchy foods such as noodles, rice, spaghetti. These may dull their appetites for the other foods in the lunch.
- Foods in a form younger children can manage easily such as bite-size pieces of meat. Serve some "finger foods"—vegetable sticks, wedges of fresh fruits.
- Simple nutritious desserts which will help meet Type A lunch requirements.

FOR CHILDREN IN THE UPPER ELEMENTARY GRADES (10 up to 12 years)—the five food groups of the Type A pattern form the foundation of the lunch. When these foods are used in the amounts specified, and in combination with Other Foods necessary to satisfy the appetite, the lunches served will make a substantial contribution to the food needs of 10- to 12-year old boys and girls.

. . and Youth

FOR BOYS AND GIRLS IN SECONDARY SCHOOLS (ages 12 up to 18 years)—the quantities of foods specified in the pattern may need to be increased to provide for their greater nutritional needs. School lunch staffs must recognize the importance of serving generous amounts of high quality food at a reasonable charge and in attractive settings. Teenagers will accept and enjoy eating Type A lunches tailored to meet their food needs and preferences including foods that are the teen-age "rage."

Well-planned lunches providing for controlled choices of foods is another means of satisfying teen-age customers. Their desire for independence of thought and their need for making their own decisions can be recognized by offering a limited number of food choices within the framework of the Type A pattern. These might include:

A choice within food groups of the Type A pattern:

Main Dishes	Vegetables and Fruits		Desserts (Other Foods)
Meat Loaf or Barbecued Beef Sandwich	Cooked Vegetables—	Salad—	Gingerbread/Frosting or
Baked Turkey or Glazed Ham	Broccoli Spears or Glazed Sweetpotatoes	Hot Potato Salad or Jellied Cranberry-Fruit Salad	Chocolate Chip Cookies
Macaroni & Cheese or Fish Sticks	Green Lima Beans or Corn "Niblets"	Fruit Desserts—	Red Gelatin Cubes/Topping or Ice Cream Cup
		Cherry Cobbler or Sliced Peaches	

A choice of two or more Type A lunches:

Hot Main Dish	AND	Cold Salad Plate
Oven-Fried Chicken		Tuna Salad on Lettuce/Potato Chips
Parsley Potato Peas & Carrots		Tomato Wedges Chilled Pears
Tomato Wedges		Buttered Hot Roll Milk
Buttered Hot Roll Milk		Frosted Applesauce Cake
Frosted Applesauce Cake		

Hot Main Dish	AND	Cold Sandwich Plate or Box Lunch
Pizza/(Butter or Margarine)		Ham/Cheese/Lettuce Sandwich
Tossed Salad/Italian Dressing		on Buttered Hard Roll Pickle Strip
Orange Wedges		Potato Salad Orange Halves
Milk		Milk
Peanut Butter Cookies		Peanut Butter Cookies

With careful planning and efficient management, offering limited choices within the Type A lunch pattern need not increase operating costs.

THE TYPE A SCHOOL LUNCH
GUIDE TO THE AMOUNTS OF FOOD FOR BOYS AND GIRLS OF SPECIFIED AGES

Pattern	Pre-school children (2 up to 6 years)	Elementary school children		Secondary schools boys and girls (12 up to 18 years)[1]
		6 up to 10 years	10 up to 12 years	
Meat and/or alternate: One of the following or combinations to give equivalent quantities:			(Type A lunch)	
Meat, poultry, fish	1½ ounces	2 ounces	2 ounces	3 ounces
Cheese	1½ ounces	2 ounces	2 ounces	3 ounces
Egg[2]	1	1	1	1
Cooked dry beans and peas	¼ cup	⅓ cup	½ cup	¾ to 1¼ cups
Peanut butter	2 tablespoons	3 tablespoons	4 tablespoons	4 to 5 tablespoons
Vegetable and/or fruit[3]	½ cup	¾ cup	¾ cup	1 to 1½ cups
Bread[4]	½ slice	1 slice	1 slice	1 to 3 slices
Butter or fortified margarine	½ teaspoon	1 teaspoon	1 teaspoon	1 to 2 teaspoons
Milk	¾ cup[5]	½ pint	½ pint	½ pint

[1] When a range in amounts is given, the smaller amounts are suggested for girls and the larger amounts for older boys. An amount midway between the amounts shown is suggested for younger boys.

[2] When egg is served as the main dish in the lunch, use in addition a half portion of meat or other meat alternate for all children except those 3 up to 6 years.

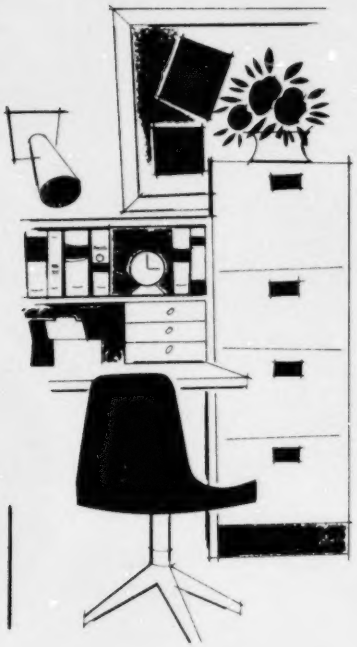
[3] Must include at least two kinds.

[4] Or a serving of cornbread, biscuits, rolls, muffins, etc., made of whole-grain or enriched meal or flour.

[5] If this is impractical, serve ½ pint.

REMEMBER: The amounts of foods for all age groups, except 10 up to 12 years, are intended as guides and their literal use is not mandatory.

A System for Menu Planning



Eating lunch at school should be a real pleasure. Planning menus that satisfy school lunch customers—pre-schoolers to teenagers, as well as adults—is a challenging and complex task. The person planning the menus holds the key to nutritional adequacy of the lunch and the acceptability of foods by pupils and teachers. The wise supervisor or manager will organize her efforts and capitalize on the imagination and talents of many individuals and student groups.

From the management standpoint, menu planning is probably the most important phase of school food service operations. Menus must reflect the operational realities of the food service system.

Menus can be planned more easily and efficiently when a systematic method is followed.

ORGANIZE THE PLACE

- Have a special place at school where menus are planned.
- A well-arranged office, if one is available, or a quiet corner in the kitchen or dining area is a good place.
- Equip the space to be used with a desk or table, a chair, a bulletin board and a file cabinet or a bookcase or built-in shelf for reference materials and recipes.

ARRANGE THE REFERENCE MATERIALS and special aids in an orderly manner.

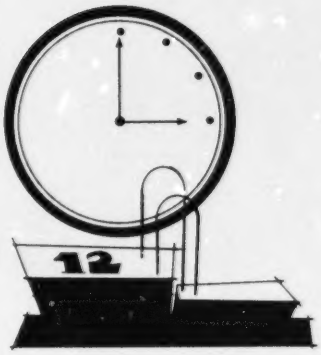
- Label each reference file: Previous Menus, Inventories of USDA-Donated Foods and Purchase Foods, USDA-Fact Sheets on Donated Foods, Market Reports, Price Lists, Menu Suggestions (popular items), and Newsletters. Keep all files at the menu planning center.
- Have Menu Planning Guide (this publication), Food Buying Guide, USDA Recipe Card File, Menu Forms or Record Books readily available. (For additional background information, see pages 18 and 19.)
- Refer to School Calendar, School and Local Papers for "Now" activities.

DETERMINE THE PERIOD OF TIME for which menus will be planned.

- Plan menus for at least a month at one time. (See page 14—How to Plan Menus.)
- Consider purchasing practices and delivery schedules for USDA-donated foods and locally purchased foods.

SCHEDULE A TIME TO PLAN.

- Plan menus from two weeks to a month ahead of the time they are to be served.
- Decide on the day(s) of the week or month on which to plan menus. Set aside a special time when you will be free from interruption. Select a time when you are relaxed and your appetite is good.
- Allow enough time to study food inventories, current market and price reports, and previous menus used; to review menu suggestions, select recipes, and plan and check the menus.
- Allow time also to determine quantities of foods needed and prepare market orders.
- Allow time to involve interested individuals and student groups. (Student involvement helps sell school lunches.)



PLAN FOR THE TOTAL JOB

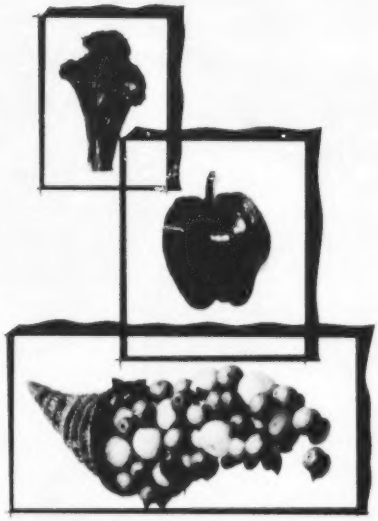
Good menu planning goes beyond the listing of specific foods to be included in daily lunches. A menu planning worksheet can help systematize the total job.

- Record the menus planned on a worksheet designed for that purpose and suited to individual needs. (See sample worksheets—pages 17 and 21.)
- Select the specific recipes to be used in preparing the different menu items. Refer to PA-631, Quantity Recipes for Type A School Lunches.
- Determine the size serving desired.
- Evaluate the menus from the standpoints of meeting Type A lunch requirements as well as quality and quantity.
- Estimate the number of lunches to be prepared.
- Adjust the recipes selected to provide the necessary number of servings.
- Calculate the amounts of food required for the total number of lunches to be served to boys and girls and adults. Use PA-719 (this publication) and PA-270, Food Buying Guide for Type A School Lunches.
- Calculate the cost of the lunches.
- Prepare purchase orders relative to food inventories.
- Develop production time and work schedules.

CAREFUL SYSTEMATIC PLANNING OF MENUS—WELL IN ADVANCE—IS A KEY TO GOOD MANAGEMENT.

Tips for Planning Type A Menus

Creative menu planning calls for originality, imagination and a spirit of adventure. Personnel responsible for planning menus must recognize that appealing, interesting and economical lunches can be planned for many kinds of Type A lunches from the simple box lunch to the lunch with many choices. Advances in food technology make it possible to serve Type A lunches in many forms such as a cup-can lunch, a frozen TV-type lunch or a lunch prepared from "scratch." Keep the following points in mind:



PLAN FOR VARIETY

Plan to include a wide variety of foods from day to day.

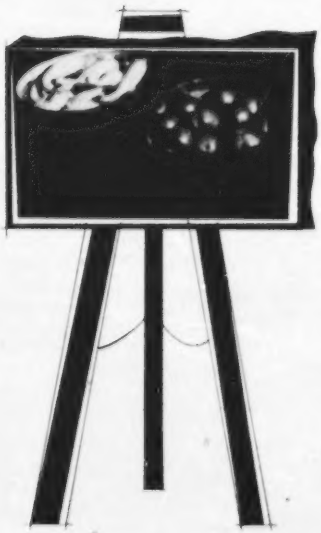
- Do not use the same food on consecutive days—meat balls with spaghetti on Monday and beef patties on Tuesday.
- Do not use the same food on the same day of each week. Each Monday should not be "hot dog" day nor Tuesday "chicken and mashed potato" day.

Plan for a variety of types of lunches. Plan lunches around a casserole, a soup and sandwich or main dish salad.

Plan to include different forms of foods prepared in different ways. Lists of various main dishes, ways to prepare vegetables and suggestions for variety in breads will be helpful.

- Do not use two foods prepared in the same way in the same lunch—two creamed dishes or two casserole-type dishes.
- Do not use foods prepared in the same way each time they are served—vegetables can be served raw or cooked, peeled or unpeeled, buttered, creamed, scalloped with different sauces or seasonings—but be sure the "different way" of serving is as good or better than the "usual way."

Plan to include the food combinations most acceptable to children. Include a surprise item or a small amount of a new or unfamiliar food. For example, serve roast beef and mashed potatoes occasionally—but add cheese balls rolled in nuts as a garnish on the salad or add a small serving of an unfamiliar or less popular food such as a salad with fresh spinach or raw cauliflower.



PLAN FOR CONTRAST

Plan to use some crisp, firm foods with soft, creamy ones.

- Use something crisp or firm in each lunch—a green salad, raw vegetable sticks or hard rolls.
- Do not use too many starchy foods in the same menu—macaroni and potatoes, noodles and corn, sweetpotatoes and rice.

Plan to use a combination of mild and strong flavored foods.

- Do not use too many foods with pronounced flavors in the same lunch—broccoli, onions and turnips; cabbage and cauliflower.
- Do not use two foods of the same flavor together—tomato juice and stewed tomatoes, or macaroni and cheese and a pineapple-cheese salad.

Plan to use a pleasing combination of different sizes and shapes of foods.

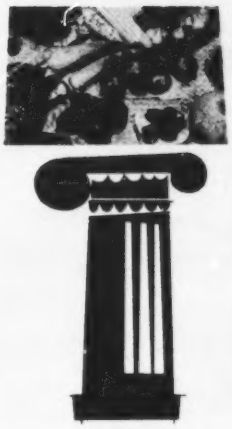
- Do not use too many chopped or mixed items in the same lunch—potato-ham-cheese casserole, tossed salad and fruit cup.
- Do not use too many foods of the same shape together—meat balls, steamed potatoes, whole beets and muffins; or cubed meat, diced potatoes, mixed vegetables and fruit cocktail.

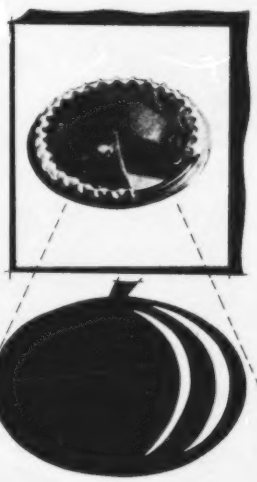
PLAN FOR EYE APPEAL

Plan to use combinations of colors that blend well. Consider the color of the dishes to be used as well as the colors of the foods.

- Use at least one or two colorful foods in each menu. The natural red, green and orange colors of fruits and vegetables add eye appeal.
- Use colorful foods in combination with those of little or no color—broccoli spears with creamed potatoes; pimiento or green pepper in corn pudding.
- Use garnishes to brighten food naturally lacking in color—a slice of radish or cucumber, stuffed olives, a tomato wedge, sieved egg, a bit of brightly colored fruit, a sprig of parsley or watercress, a dash of paprika.

Plan the way the menu items will be placed on the tray or plate. Visualize how the foods will look when served and decide on the most attractive arrangement.





CONSIDER:

Food Habits—Plan lunches that cater to the regional, cultural and personal food preferences of children—however, include "new" or less popular foods with well-liked or familiar ones.

- Introduce as "new foods" those which supply the nutrients most often lacking in home diets.
- Be sure menus do not reflect personal food prejudices.

Special Occasions—Plan lunches which have a festive air for school and National holidays, childrens' birthdays, parents' visiting days, Universal Menu for National School Lunch Week. Dress up the foods in these lunches. Use imagination in planning the kinds of food to serve—the garnishes to use—the shapes of cookies—cake decorations.

Climate or Seasons—Plan lunches that include more hot foods in cold weather—more cold foods and salads in warm weather.

Availability of Foods—Plan lunches that include foods "in season." Serve fresh foods when they are plentiful and at the peak of quality.

REMEMBER:

Food Cost—Plan lunches that are within the food budget.

- Make maximum use of USDA-donated foods and foods in plentiful supply.
- Check food inventories and schedule the use of both USDA-donated and locally purchased foods.
- Use standardized recipes and portion control.
- Balance the use of high-cost and low-cost food items within the period of time for which lunches are planned.

Facilities—Plan lunches that can be prepared and served with the facilities and equipment available.

- Consider oven, surface-cooking, steamer space and refrigeration.
- Consider the numbers and kinds of serving tools and dishes needed to serve each menu.

Personnel—Plan lunches that can be prepared by the employees in the time available.

- Consider the amount of hand preparation required for each menu.
- Schedule employees' time so that their particular skills can be used to best advantage.
- Balance work load from day to day and week to week.

TYPE A FOODS

MEAT AND MEAT ALTERNATE

Cheese
- Cheddar
- Cottage
- Swiss

Dry beans
Dry peas

Eggs
- Dried, whole
- Frozen, whole
- Shell

Fish and shellfish

Meat—canned, dried, fresh and frozen
- Beef
- Lamb
- Pork
- Veal
- Variety meats and luncheon meats
  - Frankfurters
  - Liver[5] and other organ meats
  - Luncheon meats (including bologna, liverwurst[5])

Peanut butter

Poultry—canned, fresh and frozen
- Chicken
- Turkey

Protein-fortified, enriched macaroni (when mixed with meat, poultry, fish or cheese)

Textured vegetable protein (when mixed with meat, poultry, or fish)

VEGETABLES AND FRUITS

Include a VITAMIN A vegetable or fruit at least twice a week[1]

Vegetables and Fruits

A ¼ cup serving
(about 1500 or more International Units of vit. A)

- Beet greens
- Carrots
- Chard, Swiss
- Chili peppers, red[3]
- Collards[4]
- Cress, garden[3]
- Dandelion greens[3]
- Kale[3]
- Mangoes[3]
- Mixed vegetables (frozen)
- Mustard greens[3]
- Peas and carrots (frozen)
- Peppers, sweet red[3]
- Pumpkin
- Spinach[3]
- Squash, winter (acorn, butternut, Hubbard)
- Sweetpotatoes[3]
- Turnip greens[3]

A ¼ cup serving
(about 750-1500 International Units of vit. A)

- Apricots
- Broccoli[3]
- Cantaloup[3]
- Chicory greens
- Papayas[3]
- Purple plums (canned)

A ½ cup serving
(about 750-1500 International Units of vit. A)

- Asparagus, green[3]
- Cherries, red sour
- Chili peppers, green (fresh)[3]
- Endive, curly
- Escarole
- Nectarines
- Peaches (except canned)
- Prunes
- Tomatoes[3]
- Tomato juice or reconstituted paste or puree[3]

Include a VITAMIN C vegetable or fruit several times a week[2]

Vegetables and Fruits

A ¼ cup serving
(about 25 milligrams or more of vit. C)

- Acerola
- Broccoli[4]
- Brussels sprouts
- Chili peppers, red[4] and green
- Guavas
- Orange juice
- Oranges
- Papayas[4]
- Peppers, sweet, red[4] and green

A ¼ cup serving
(about 15-25 milligrams of vit. C)

- Cauliflower
- Collards[4]
- Cress, garden[4]
- Grapefruit
- Grapefruit juice
- Grapefruit-orange juice
- Kale[4]
- Kohlrabi
- Kumquats
- Mangoes[4]
- Mustard greens[4]
- Pineapple juice (canned—vitamin C restored)
- Strawberries
- Tangerine juice
- Tangerines

A ¼ cup serving
(about 8-15 milligrams of vit. C)

- Asparagus
- Cabbage
- Cantaloup[4]
- Dandelion greens[4]
- Honeydew melon
- Okra
- Potatoes (baked, boiled or steamed)
- Potatoes (reconstituted instant mashed—vitamin C restored)
- Raspberries, red
- Rutabagas
- Sauerkraut
- Spinach[4]
- Sweetpotatoes[4] (except those canned in sirup)
- Tangelos
- Tomatoes
- Tomato juice or reconstituted paste or puree
- Turnip greens[4]
- Turnips

Include these vegetables and fruits as needed

Vegetables and Fruits

- Apples
- Applesauce
- Avocados
- Bananas
- Beans, green or wax
- Beans, lima, green
- Bean sprouts
- Beets
- Berries (black, blue, etc.)
- Celery
- Chinese cabbage
- Corn
- Cranberries
- Cranberry sauce
- Cucumbers
- Dates
- Eggplant
- Figs
- Fruit cocktail
- Fruits for salads
- Grapes
- Lettuce
- Mixed vegetables (canned)
- Mushrooms
- Olives
- Onions
- Parsley
- Parsnips
- Peaches (canned)
- **Pears**
- **Peas and carrots (canned)**
- Peas, green, immature Cowpeas, immature seed
- Pimientos
- Pineapple
- Plums
- Potatoes (mashed, fried, etc.)
- Radishes
- Raisins
- Rhubarb
- Squash, summer
- Watercress
- Watermelon
- Fruit juices (apple, grape, pineapple, etc.)

BREAD (enriched or whole grain)

Group 1 (25 gms.)
- Bagels
- Biscuits
- **Boston brown bread**
- **Buns (all types)**
- Cornbread
- English muffin
- French or Vienna "Fry" bread
- Italian bread
- Muffins
- Pretzels (soft)
- Pumpernickel
- Raisin bread
- Rolls
- Rye bread
- Salt sticks
- Stuffing (bread)
- Syrian bread (flat)
- White bread
- Whole wheat bread

Group 2 (20 gms.)
- Bread sticks (dry)
- Graham crackers
- Melba toast
- "Pilot" bread
- Rye wafers
- Saltine crackers
- Soda crackers
- **Taco shells**
- Zwieback

Group 3 (30 gms)
- Dumplings
- Hush puppies
- Meat pie crust
- Meat turnover crust
- Pancakes
- Pizza crust
- Popovers
- Sopapillas
- Spoonbread
- Tortillas
- Waffles

BUTTER OR MARGARINE

Butter
Margarine, fortified with 15,000 I.U. vitamin A per pound

MILK

Milk, fluid
- whole
- lowfat
- skim
- cultured buttermilk

Meat and Meat Alternate:
Dry beans and peas
Eggs
Meats in general especially liver (liverwurst) and other organ meats
Peanut butter
Poultry
Shellfish, Tuna

Vegetables and Fruits

- Apples (canned)
- Asparagus
- Beans—green, wax, lima
- Berries
- Dried fruits—apricots, dates, figs, peaches, prunes, raisins
- Peas, green, immature Cowpeas, immature seed
- Purple plums (canned)
- Rhubarb
- Squash
- Sweetpotatoes
- Tomatoes (canned)
- Tomato juice, paste, puree
- Vegetables.
  - Dark green leafy—beet greens, chard, collards, endive, escarole, kale, mustard greens, spinach, turnip greens
  - Other dark green—broccoli, Brussels sprouts

Breads, enriched or whole-grain:
Biscuits
Boston brown bread
Cornbread
Loaf
Muffins
Rolls

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[1] Vitamin A vegetables and fruits—the vegetables and fruits listed below will supply at least 750 International Units of Vitamin A per ¼ or ½ cup serving. When these vegetables and fruits are served at least twice a week in recommended amounts along with a variety of additional vegetables and fruits used to meet the ¾ cup vegetable and fruit requirement (10- to 12-year old boys and girls), the 1 teaspoon of butter or fortified margarine, and the ½ pint fluid milk required in each lunch, the Vitamin A content of the lunch will generally meet or exceed the 1500 International Units goal for the lunch.

[2] Vitamin C vegetables and fruits—the vegetables and fruits listed below will supply about 8 milligrams or more Vitamin C (ascorbic acid) per ¼ cup serving. When these vegetables and fruits are served several times a week in recommended amounts along with a variety of additional vegetables and fruits to meet the ¾ cup vegetable and fruit requirement (10- to 12-year old boys and girls), and the ½ pint of fluid milk required in lunches each day, the average daily Vitamin C content of the lunch will generally meet or exceed the 13 milligram goal for the lunch.

[3] See listing of Vitamin C foods.
[4] See listing of Vitamin A foods.
[5] One ounce provides more than 1500 International Units of Vitamin A.

[6] Foods for Iron—because of the way iron is distributed among many foods (meats, vegetables and fruits and breads), it is recommended that each lunch include several foods that are worthwhile sources of iron in sufficient quantities for the age group served. The list of foods for iron includes meat and meat alternate foods that supply at least 1.0 milligram of iron per serving and vegetables, fruits, breads and other foods that supply 0.6 milligram of iron per serving. The goal for iron for the lunch is 5.0 milligrams.

Steps in Planning a Type A Menu*

Step 1

Select a meat or meat alternate

Include 2 ounces of cooked meat or the equivalent as specified in the Type A pattern.

Plan to use a meat or meat alternate in the main dish—alone or in casseroles, stews, loaves or use in the main dish and one other menu item—soups, salads, sandwiches or desserts. From a nutritional standpoint, it is desirable to include an "extra" source of protein (meat, cheese, peanut butter) when eggs, luncheon-type meats, dry beans or dry peas are used as the main meat or meat alternate in the lunch.

REMEMBER—Cooked dry beans or dry peas may be counted as a meat alternate or a vegetable—not as both in the same lunch.

—A 2-ounce portion of a commercially prepared cheese product (cheese food or cheese spread) will meet only ½ of the meat alternate.

—Textured vegetable protein products are allowed as a meat alternate when no more than 30 percent of the hydrated protein products are mixed with 70 percent uncooked meat, poultry or fish. (See USDA fact sheet.)

—Protein fortified, enriched macaroni-type products—one ounce of dry macaroni or spaghetti (½ to ¾ cup cooked) may be used as one ounce of meat alternate when mixed with one ounce of cooked meat, poultry, fish or cheese in a main dish. (See USDA fact sheet.)

Step 2

Choose the vegetables and fruits

Include 2 or more servings of vegetables and/or fruits in amounts to total ¾ cup.

Plan to use vegetables raw or cooked—alone or combined in salads, casseroles, stews.

Plan to use fruits raw or cooked—alone or combined in salads, fruit cups, desserts.

For lists of vegetables and fruits that are sources of vitamin A, vitamin C and iron, see the chart—Foods for Type A School Lunches (page 10).

REMEMBER—Full-strength vegetable or fruit juice may be counted to meet no more than ¼ cup of the vegetable-fruit requirement. A ½ cup serving of a fruit juice drink (50 percent juice) provides ¼ cup juice.

—Cereal foods such as macaroni, spaghetti, noodles, rice and hominy are considered Other Foods and do not meet the vegetable-fruit requirement.

—Menu items such as fruit cocktail, peas and carrots, and combination salads are considered as only one serving of a vegetable or fruit.

Step 3

Decide on an appropriate bread

Include 1 or more portions of bread made with whole-grain or enriched flour or meal.

Plan to use bread as an accompaniment to the lunch—or in sandwiches.

Plan to use a bread which will "go well " with the main dish and other items in the lunch.

REMEMBER—Unenriched crackers are considered Other Foods and do not meet the bread requirement.

Step 4

Include butter or fortified margarine

Plan to use 1 teaspoon of butter or margarine as a spread for bread or in the preparation of the lunch.

REMEMBER—The use of butter or fortified margarine as a spread for bread is optional only when the required amount is used in food preparation.

Step 5

Include milk

Plan to use ½ pint fluid milk as a beverage.

Use nonfat dry milk in cooking to keep cost down and nutritive value up.

REMEMBER—Nonfat dry milk and fluid milk used in food preparation may not be counted toward meeting the milk requirement.

Step 6

Add a dessert and other foods as needed

Plan to use a dessert and Other Foods for appetite appeal and to increase the nutritive value of the lunch. Include foods for iron frequently.

REMEMBER—Desserts containing such foods as fruits, eggs, peanut butter, milk and enriched or whole-grain cereals, flour or meal are desirable.

* Amounts of foods used as examples are for 10- to 12-year old boys and girls. See Guide to the Amounts of Food for Boys and Girls of Specified Ages (page 5).

For Each Lunch Use:
1 meat or meat alternate such as—
- 2 oz. cooked meat, poultry or fish.
- 2 oz. cheese.
- 1 egg.
- ½ cup cooked dry beans or dry peas.
- 4 tablespoons peanut butter.

or

A combination of meat and meat alternates such as—
- 1 oz. cooked meat + 1 oz. cheese.
- 1 oz. cooked meat + ¼ cup cooked dry beans.
- 1 oz. cooked poultry + ½ egg.
- 1 oz. cooked fish + 1 oz. cheese.
- 1 oz. cheese + 2 Tbsp. peanut butter.

Cheeseburger—Pickle Chips and Onion Ring Garnish

A cheeseburger combines two of the meat and meat alternates listed in the Type A pattern and makes an inexpensive main dish. It is easy to prepare, cooks quickly and is an all-time favorite.

The pickle chips and onion rings are added for texture and flavor contrast.

Mayonnaise, mustard or catsup may be added for taste appeal.

For Each Lunch Use:
2 servings such as—
- ½ cup vegetable + ¼ cup fruit.
- ½ cup vegetable + ¼ cup vegetable.
- ⅜ cup (6 Tbsp.) vegetable + ⅜ cup (6 Tbsp.) fruit.

or

3 servings such as—
- ¼ cup vegetable + ¼ cup vegetable + ¼ cup fruit.
- ¼ cup vegetable + ¼ cup vegetable + ¼ cup fruit juice.
- ⅜ cup (6 Tbsp.) vegetable + ¼ cup (4 Tbsp.) vegetable + ⅛ cup (2 Tbsp.) fruit.

Polka Dot Corn
Buttered Broccoli Spears

These selections of vegetables with the cherries in the dessert meet the vegetable-fruit requirement. They make a pleasing color combination and the flavors are varied—from mild to strong and sweet to tart. The broccoli provides vitamin A, vitamin C and iron.

For Each Lunch Use:
- 1 slice of bread—any variety or
- 1 roll, biscuit or muffin or
- 1 portion of cornbread or other hot bread.

Bun

A school-made bun, plain or split, buttered and toasted, completes the cheeseburger—so popular with children.

For Each Lunch Use:
- 1 tsp. butter or margarine on bread or in sandwich or
- ½ tsp. on bread + ½ tsp. in food preparation or
- 1 tsp. in food preparation.

Butter

Butter on the bun or as a seasoning for the vegetables or in the Cherry Crisp adds taste appeal.

For Each Lunch Use:
½ pint fluid milk.

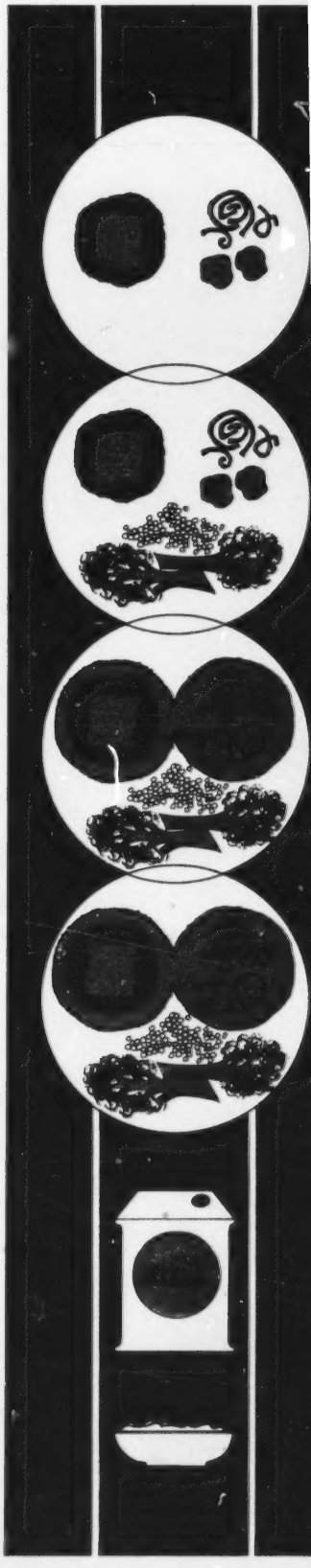
Milk

Milk is the beverage.

For Each Lunch Use:
A dessert and Other Foods as needed to complete the lunch.

Cherry Crisp

The crisp topping adds energy and iron to the lunch. Rolled wheat used in the topping adds a different flavor.



How to Plan Menus

The thoughtful planning of menus for a month at one time helps assure a good variety of foods, increased use of USDA-donated foods, economy in buying, and effective use of facilities and employees' time and skills. To plan menus for a month, use the Type A lunch pattern and the chart for the amounts of food for boys and girls of specified ages as guides and keep the following points in mind:

PLAN THE MEAT AND MEAT ALTERNATE MAIN DISHES FOR THE ENTIRE PERIOD

- Plan to use a variety of main dish items during the month.
- Include meat and meat alternates that are sources of iron as frequently as possible.
- If a meat or meat alternate is repeated during the month, vary the vegetables and fruits used.
- Follow a plan for providing a good variety of meat and meat alternates in the main dishes. For example, in each four week period, plan to meet the meat and meat alternate requirement by serving:

Meat—alone or supplemented with cheese, eggs or peanut butter	8 to 10 times
Poultry, Fish or Cheese—alone or supplemented with eggs or peanut butter	4 to 6 times
Dry Beans or Dry Peas—combined with meat or cheese	4 times
Any other meat and meat alternate or any combination of meat and meat alternate foods	2 times

CHOOSE THE VEGETABLES AND FRUITS

- Plan vegetables and fruits that "go well" with each main dish and each other. Use a different combination of two or more servings of vegetables and fruits each day. Include various forms of vegetables and fruits—raw or cooked; fresh, canned, frozen or dried.
- Include vegetables and fruits that are sources of:

Vitamin A	at least twice a week
Vitamin C	several times a week
Iron	as frequently as possible

- See chart—Foods for Type A School Lunches (page 10) for lists of vegetables and fruits that are sources of vitamin A, vitamin C and iron.

SELECT A VARIETY OF BREADS

- Use an enriched or whole-grain bread which will "go well" with the main dish and other items in each lunch.
- Plan to use a different kind of bread each day.
- Include school-made loaf breads or hot breads such as rolls, sandwich buns, muffins, biscuits, brown bread, cornbread, as often as possible. (See list of Breads, page 11.)

INCLUDE BUTTER OR FORTIFIED MARGARINE

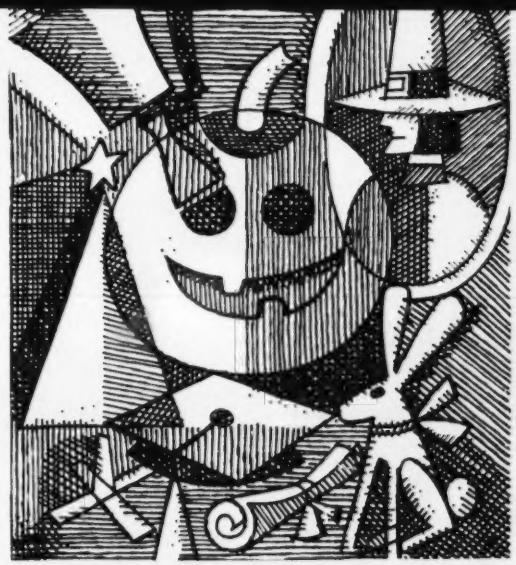
- Plan to use butter or margarine for each lunch each day as a spread for bread or in preparation of the lunch.

INCLUDE MILK

- Use fluid milk as the beverage with each lunch.

ADD DESSERTS AND OTHER FOODS AS NEEDED

- Include desserts and Other Foods in the lunches to help meet the boys' and girls' needs for calories and other nutrients. See chart—Foods for Type A School Lunches (page 11) for list of Other Foods.
- Plan to use the more satisfying types of these foods—the enriched or whole grain cereals and other products such as macaroni, rice, bulgur and the richer desserts such as cakes and pies with the lighter lunches. Serve fruits and lighter desserts with the more hearty lunches.



Cycle Menus—An Approach to Menu Planning

In many schools a series of carefully planned menus, used and repeated in order for a definite period or cycle of time, has been found to be a means of providing economical, nutritious lunches.

A cycle for a twenty to thirty day period can provide greater variety in menus, savings in time and money, and better controls of all other management activities. Food and labor requirements can be forecast more accurately; more effective use can be made of equipment and labor hours in planning food production.

A shorter cycle for a seven, twelve, or eighteen day period may well be used to good advantage in meeting more specialized needs. For example—menus for a box or bag lunch, menus for a sandwich and salad, or menus for a low-calorie Type A lunch for a separate serving line to provide a choice in high schools, or menus cooperatively planned with student representatives for a Type A lunch to be served on the "speed line."

Lists of menu items for different seasons of the year, for hot and cold weather, for special occasions and holiday seasons will help provide a good variety of foods.

BEFORE PLANNING CYCLE MENUS:

Decide on the Type of lunches to be planned and the length of cycle. The length of the cycle menu will vary depending on local needs and situations, such as the season of the year.

PLAN MENUS CAREFULLY FOR THE PERIOD SELECTED

Keep in mind the points to consider in planning menus. Use the Type A lunch pattern and chart to "Guide to the Amounts of Food for Boys and Girls of Specified Ages" (page 5). Follow the six steps in planning a menu and consider the pointers on how to plan menus.

Flexibility is the keynote—menus should be reviewed frequently to make adjustments in changes in availability of USDA-donated foods; to take advantage of an especially good buy or a seasonal food; to provide a suitable lunch for a holiday or special celebration; to substitute a more acceptable method of preparation.

REMEMBER:

Cycle or rotating menus will not put an end to menu planning, but when properly planned and efficiently used, they can be an effective management tool.

If the cycle is short, the number of days in the cycle should not be a multiple of five so a menu will not reappear on the same day of the week each time the cycle is repeated.

How to Evaluate Menus

After the menu items, recipes and serving sizes for the age groups to be served have been planned and recorded, check menus against the questions below. Follow through on the total job of planning menus—determine the total amounts of foods needed, estimate cost and prepare purchase orders and work schedules.

Do lunches meet Type A requirements?

Are all five components of the lunch included?

Are serving sizes sufficient to provide 10- to 12-year old boys and girls at least:

2-ounces of a meat or meat alternate or the equivalent as specified in the Type A pattern?

¾ cup serving consisting of two or more vegetables or fruits or both?

1 serving of enriched or whole-grain bread?

1 teaspoon of butter or fortified margarine?

½ pint fluid milk as a beverage?

Refer to the Guide to the Amounts of Food for Boys and Girls of Specified Ages, page 5.

Do lunches meet the nutritional goal?

Is a VITAMIN A vegetable or fruit included at least twice a week?

Is a VITAMIN C vegetable or fruit included several times a week?

Are several foods for IRON included each day?

Are servings of Type A foods planned and Other Foods included to meet nutritional needs of boys and girls of various age groups and satisfy their appetites?

Are the combinations of foods pleasing and acceptable to children?

Do lunches include a good balance of:

Color—in the foods themselves or as a garnish?
Texture—soft and crisp or firm textured foods?
—starchy and other type foods?
Shape—different sized pieces and shapes of foods?
Flavor—bland and tart or mild and strong flavored foods?
Temperature—hot and cold foods?

Are most of the foods and food combinations ones children have learned to eat?

Have children's cultural, ethnic, and religious food practices been considered?

Is a popular food or dish planned for a lunch which includes a "new" or less popular food?

Are festive foods included for holidays, birthdays, school affairs?

Are foods varied from day to day? Week to week?

Are different kinds or forms of foods (fresh, canned, frozen, dried) included?

Are seasonal foods included?

Have "new" foods or new methods of preparation been included occasionally?

Can lunches be prepared and served successfully by employees in the time available?

Are lunches planned so that some preparation can be done ahead?

Is work load balanced among employees from day to day?

Can lunches be prepared and served with facilities and equipment available?

Is oven, surface-cooking or steam-cooking space adequate for items planned for each lunch?

Are proper sized cooking and serving utensils available?

Can foods planned for each lunch be easily served?

Will foods "fit" on dishes or compartment trays?

Has cost of lunches been considered?

Have USDA-donated foods been used to best advantage?

Have "plentiful" foods been included as often as practicable?

Have foods in inventory been used to the extent possible?

Do high- and low-cost foods and lunches balance?

WEEK OF ----------

SAMPLE MENUS USING MENU PLANNING WORKSHEET

Plan the Kind and Amounts of Foods Needed for the Number to be Served

Day of Week and Number of Lunches	MENU	Size of Serving	Meat and Meat Alternate	Vegetables and Fruits	Check: Vitamin A	Check: Vitamin C	Check: Iron	Bread	Butter or Margarine	Milk	Other Foods
MONDAY Planned: 300 Served: Children Adults Total	Country Fried Steak D-26 /Brown Gravy Oven French Fried Potatoes Buttered Broccoli Sliced Peaches Buttered Cornmeal Yeast Roll B-8 Milk Food cost per lunch	2 oz 1/4 c 1/2 c 1/4 c 1/4 c 1 roll 1/2 pt	Ground Beef 17.5 lb×3=52-1/2 lb D-26 (3×recipe)	Potatoes, French Fries, Regular Crinkle cut 13.6 lb×3=41 lb Broccoli, Frozen Chopped 11.6 lb×3=35 lb Peaches, Canned Sliced 2.1/10×3=6-1/2/10		√	√ √ √	B-8 Cornmeal Yeast Roll (3×recipe)	Broccoli 1-3/4 lb Roll 1-1/2 lb 3-1/4 lb	300 1/2 pt	
TUESDAY Planned: 300 Served: Children Adults Total	Oven-Fried Chicken D-39 Parsley Rice B-2 Savory Peas J-18 Chilled Fruit Cup (1/4 c pineapple 1/8 c grapefruit 1/8 c banana) Roll B-12 Butter (on peas & roll) Milk Chocolate Chip Cookies C-25a Food cost per lunch	2 oz 1/3 c 1/4 c 1/2 c 1 roll 1 tsp 1/2 pt 1	Chicken, frying 41.75 lb×3=125-1/4 lb D-39 (3×recipe)	J-18 (1.5×recipe) Canned Green Peas 4.67/10×1.5=7/10 Onions 1.12 lb×1.5=1-3/4 lb Fruit Cup (1/2 c) Canned Pineapple Chunks 2.15/10×3=6-1/2/10 Grapefruit Sections 2.23/3 cyl.×3=7/3 cyl. Bananas 6.2×3=18-3/4 lb		√	√ √ √	B-12 Rolls (3×recipe)	J-18 Peas 3/4 lb Roll 2-1/2 lb 3-1/4 lb	300 1/2 pt	B-2 Rice 12-1/2 lb (72-1/3 c (#12 scoop) in 1-1/2 gal cooked rice—3 lb) C-25a (3×recipe)
WEDNESDAY Planned: 300 Served: Children Adults Total	Fish Sticks/Catsup Confetti Corn Glazed Carrots J-13a Tossed Salad/Tomatoes & French Dressing E-18b French Bread B-9 Butter (on corn & carrots) Milk Gingerbread C-14 Food cost per lunch	2.3 oz 1/4 c 1/4 c 1/4 c 1 serv. 1 tsp 1/2 pt 1 serv.	4 oz Breaded Fish Portions 25 lb×3=75 lb	Corn, Whole Kernel Wet Pack 2.25/10×3=7/10 Pimiento, Green Pepper (Garnish) J-13a (1.5×recipe) Carrots 27 lb×1.5=40-1/2 lb E-18b (1.5×recipe) Lettuce 5.5 lb×1.5=8-1/4 lb Spinach 1.4 lb×1.5=2-1/4 lb Onions .84 lb×1.5=1-1/4 lb Tomatoes 6.4 lb×1.5=9-3/4 lb Radishes 2.2 lb×1.5=3-1/2 lb	√	√	√ √	B-9 French Bread (1.5× recipe) 15 loaves 20 slices each	Corn 1 lb J-13a Carrots 2-1/4 lb 3-1/4 lb	300 1/2 pt	Catsup C-14 Gingerbread (3×recipe)
THURSDAY Planned: 300 Served: Children Adults Total	Lasagna D-31 Seasoned Green Beans Cabbage Green Pepper Slaw E-7a Apricot Crisp C-3a Wheat Bread B-13c Butter (on beans & crisp) Milk Food cost per lunch	2 oz 1/4 c 1/4 c 1/4 c (fruit) 1 slice 1 tsp 1/2 pt	D-31 (3×recipe) Ground Beef 8 lb×3=24 lb Cheese 7.5 lb×3=22-1/2 lb	Green Beans 2/10×3=6/10 E-7a (1.5×recipe) Cabbage 15.25 lb×1.5=23 lb Green Peppers 1.62 lb×1.5=2-1/2 lb C-3a (3×recipe) Canned Apricot Halves 3.12/10×3=9-1/2/10 Lemon Juice 3 oz×3=9 oz	√	√	√ √ √	B-13c Wheat Bread (1 recipe) 10 loaves 30 slices each	Beans 3/4 lb C-3a Crisp 2.5 lb×3=7-1/2 lb 8-1/4 lb	300 1/2 pt	
FRIDAY Planned: 300 Served: Children Adults Total	Toasted Cheese Sandwich G-8 Potato Salad on lettuce E-14 Tropical Apples C-24 Butter (on sandwich, in apples) Milk Cinnamon Crispies C-11 Food cost per lunch	2 oz (cheese) 1/2 c 1/8 c 1/4 c 1 tsp 1/2 pt 1	Cheese 12.5 lb×3=37-1/2 lb G-8 (3×recipe)	E-14 (3×recipe) Potatoes 18.25 lb×3=54-3/4 lb Celery 4 lb×3=12 lb Onions 1.12 lb×3=3-1/2 lb Lettuce 2.05 lb×3=6-1/4 lb C-24 (1.5×recipe) Apples, Canned 4/10×1.5=6/10 Oranges 3 lb×1.5=4-1/2 lb Lemons 1.34 lb×1.5=2 lb Pineapple Juice .66/3 cyl.×1.5=one/3 cyl.		√	√ √	G-8 Bread 17-2 lb loaves 600 slices	G-8 Butter on Sandwich 5-1/4 lb C-24 Apples 3 lb 8-1/4 lb	300 1/2 pt	C-11 Cinnamon Crispies (3×recipe)

Information Materials

PUBLICATIONS

- A MENU PLANNING GUIDE FOR BREAKFAST AT SCHOOL (FNS-7). Washington, D.C.: USDA, 1970.
- A GUIDE FOR PLANNING FOOD SERVICE IN CHILD CARE CENTERS (FNS-64). Washington, D.C.: USDA, 1971.
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- QUANTITY RECIPES FOR TYPE A SCHOOL LUNCHES (PA-631). Washington, D.C.: USDA, 1971.
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- NUTRITIVE VALUE OF FOODS (Home and Gard. Bul. No. 72). Washington, D.C.: USDA, S1. rev., January 1971.
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- RECOMMENDED DIETARY ALLOWANCES, Revised 1968 (Publication No. 1694). Washington, D.C.: National Research Council, National Academy of Sciences, 1968.
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- CHILD NUTRITION PROGRAMS (PA-948). Washington, D.C.: USDA, March 1971.
- FOOD FOR FITNESS—A DAILY FOOD GUIDE (Leaflet No. 424). Washington, D.C.: USDA, S1. rev., December 1971.
- NUTRIENTS AND FOODS FOR HEALTH (FNS-97). Washington, D.C.: USDA, May 1973.

The Following Instructions, Notices and Information Sheets Issued by the Child Nutrition Division, Food and Nutrition Service, USDA, Further Interpret the National School Lunch Regulations, Establish Policies, or Provide Additional Information Concerning the Operation of USDA's Child Nutrition Programs:

INSTRUCTIONS

- GUIDELINES FOR THE AMOUNTS OF FOODS TO BE SERVED CHILDREN OF SPECIFIED AGES (FNS-CN-Instruction 783-4). Washington, D.C.: USDA, 1971.
- SUBSTITUTIONS IN MEALS SERVED UNDER NATIONAL SCHOOL LUNCH AND CHILD NUTRITION ACT PROGRAMS BECAUSE OF MEDICAL AND OTHER SPECIAL DIETARY REASONS (FNS-SL-Instruction 783-2). Washington, D.C.: USDA, 1969.
- POLICY REGARDING VITAMIN C. RESTORED VEGETABLES AND FRUITS IN EVALUATING TYPE A SCHOOL LUNCHES (CFP-SL-Instruction 783-1). Washington, D.C.: USDA, 1968.
- GUIDELINES FOR THE AMOUNTS AND USE OF NONFAT DRY MILK, WHOLE DRY MILK, AND CANNED EVAPORATED MILK WHICH ARE EQUIVALENT TO ONE-HALF PINT OF WHOLE FLUID MILK FNS-CN- Instruction 783-6). Washington, D.C.: USDA, March 1972.

NOTICES

- PROTEIN-FORTIFIED, ENRICHED MACARONI-TYPE PRODUCTS TO BE USED IN COMBINATION WITH MEAT OR CHEESE FOR USE IN LUNCHES AND SUPPERS SERVED UNDER CHILD FEEDING PROGRAMS (FNS Notice 218). Washington, D.C.: USDA, February 22, 1971.
- TEXTURED VEGETABLE PROTEIN PRODUCTS TO BE USED IN COMBINATION WITH MEAT FOR USE IN LUNCHES AND SUPPERS SERVED UNDER CHILD FEEDING PROGRAMS (FNS Notice 219). Washington, D.C.: USDA, February 22, 1971.

INFORMATION SHEETS

- INFORMATION ON USING PROTEIN FORTIFIED, ENRICHED MACARONI-TYPE PRODUCTS IN CHILD NUTRITION PROGRAMS (FNS). Washington, D.C.: USDA, September 1972.
- INFORMATION ON USING TEXTURED VEGETABLE PROTEIN IN CHILD FEEDING PROGRAMS (FNS). Washington, D.C.: USDA, November 1971.

FOOD AND NUTRITION BOARD, NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL
RECOMMENDED DAILY DIETARY ALLOWANCES,[1] Revised 1968

Designed for the maintenance of good nutrition of practically all healthy people in the U.S.A.

	Age[2] Years From Up to	Weight Kg (lbs)	Height cm (in.)	Kcal	Protein gm	Fat Soluble Vitamins			Water Soluble Vitamins							Minerals				
						Vitamin A Activity I.U.	Vitamin D I.U.	Vitamin E Activity I.U.	Ascorbic Acid mg	Folacin[3] mg	Niacin mg. equiv.[4]	Riboflavin mg	Thiamine mg	Vitamin B_6 mg	Vitamin B_{12} µg	Calcium gm	Phosphorus gm	Iodine µg	Iron mg	Magnesium mg
Infants	0–1/6	4 9	55 22	kg x 120	kg x 2.2[5]	1500	400	5	35	0.05	5	0.4	0.2	0.2	1.0	0.4	0.2	25	6	40
	1/6–1/2	7 15	63 25	kg x 110	kg x 2.0[5]	1500	400	5	35	0.05	7	0.5	0.4	0.3	1.5	0.5	0.4	40	10	60
	1/2– 1	9 20	72 28	kg x 100	kg x 1.8[5]	1500	400	5	35	0.1	8	0.6	0.5	0.4	2.0	0.6	0.5	45	15	70
Children	1– 2	12 26	81 32	1100	25	2000	400	10	40	0.1	8	0.6	0.6	0.5	2.0	0.7	0.7	55	15	100
	2– 3	14 31	91 36	1250	25	2000	400	10	40	0.2	8	0.7	0.6	0.6	2.5	0.8	0.8	60	15	150
	3– 4	16 35	100 39	1400	30	2500	400	10	40	0.2	9	0.8	0.7	0.7	3	0.8	0.8	70	10	200
	4– 6	19 42	110 43	1600	30	2500	400	10	40	0.2	11	0.9	0.8	0.9	4	0.8	0.8	80	10	200
	6– 8	23 51	121 48	2000	35	3500	400	15	40	0.2	13	1.1	1.0	1.0	4	0.9	0.9	100	10	250
	8–10	28 62	131 52	2200	40	3500	400	15	40	0.3	15	1.2	1.1	1.2	5	1.0	1.0	110	10	250
Males	10–12	35 77	140 55	2500	45	4500	400	20	40	0.4	17	1.3	1.3	1.4	5	1.2	1.2	125	10	300
	12–14	43 95	151 59	2700	50	5000	400	20	45	0.4	18	1.4	1.4	1.6	5	1.4	1.4	135	18	350
	14–18	59 130	170 67	3000	60	5000	400	25	55	0.4	20	1.5	1.5	1.8	5	1.4	1.4	150	18	400
	18–22	67 147	175 69	2800	60	5000	400	30	60	0.4	18	1.6	1.4	2.0	5	0.8	0.8	140	10	400
	22–35	70 154	175 69	2800	65	5000	—	30	60	0.4	18	1.7	1.4	2.0	5	0.8	0.8	140	10	350
	35–55	70 154	173 68	2600	65	5000	—	30	60	0.4	17	1.7	1.3	2.0	5	0.8	0.8	125	10	350
	55–75+	70 154	171 67	2400	65	5000	—	30	60	0.4	14	1.7	1.2	2.0	6	0.8	0.8	110	10	350
Females	10–12	35 77	142 56	2250	50	4500	400	20	40	0.4	15	1.3	1.1	1.4	5	1.2	1.2	110	18	300
	12–14	44 97	154 61	2300	50	5000	400	20	45	0.4	15	1.4	1.2	1.6	5	1.3	1.3	115	18	350
	14–16	52 114	157 62	2400	55	5000	400	25	50	0.4	16	1.4	1.2	1.8	5	1.3	1.3	120	18	350
	16–18	54 119	160 63	2300	55	5000	400	25	50	0.4	15	1.5	1.2	2.0	5	1.3	1.3	115	18	350
	18–22	58 128	163 64	2000	55	5000	400	25	55	0.4	13	1.5	1.0	2.0	5	0.8	0.8	100	18	350
	22–35	58 128	163 64	2000	55	5000	—	25	55	0.4	13	1.5	1.0	2.0	5	0.8	0.8	100	18	300
	35–55	58 128	160 63	1850	55	5000	—	25	55	0.4	13	1.5	1.0	2.0	5	0.8	0.8	90	18	300
	55–75+	58 128	157 62	1700	55	5000	—	25	55	0.4	13	1.5	1.0	2.0	6	0.8	0.8	80	10	300
Pregnancy				+200	65	6000	400	30	60	0.8	15	1.8	+0.1	2.5	8	+0.4	+0.4	125	18	450
Lactation				+1000	75	8000	400	30	60	0.5	20	2.0	+0.5	2.5	6	+0.5	+0.5	150	18	450

1. The allowance levels are intended to cover individual variations among most normal persons as they live in the United States under usual environmental stresses. The recommended allowances can be attained with a variety of common foods, providing other nutrients for which human requirements have been less well defined. See text for more detailed discussion of allowances and of nutrients not tabulated.

2. Entries on lines for age range 22–35 years represent the reference man and woman at age 22. All Other entries represent allowances for the midpoint of the specified age range.

3. The folacin allowances refer to dietary sources as determined by Lactobacillus casei assay Pure forms of folacin may be effective in doses less than 1/4 of the RDA.

4. Niacin equivalents include dietary sources of the vitamin itself plus 1 mg equivalent for each 60 mg of dietary tryptophan.

5. Assumes protein equivalent to human milk. For proteins not 100 percent utilized factors shoud be increased proportionately.

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MENU PLANNING WORKSHEET

Week of .....

Day of Week and Number of Lunches	MENU	Size of Serving	Plan the Kind and Amounts of Foods Needed for the Number to be Served					Bread	Butter or Margarine	Milk	Other Foods
			Meat and Meat Alternate	Vegetables and Fruits	Check Vitamin A	Check Vitamin C	Check Iron				
MONDAY Planned: _____ Served: Children Adults Total _____	Food cost per lunch _____										
TUESDAY Planned: _____ Served: Children Adults Total _____	Food cost per lunch _____										
WEDNESDAY Planned: _____ Served: Children Adults Total _____	Food cost per lunch _____										
THURSDAY Planned: _____ Served: Children Adults Total _____	Food cost per lunch _____										
FRIDAY Planned: _____ Served: Children Adults Total _____	Food cost per lunch _____										